

Prokaryotic Gene Regulation Quiz

Multiple Choice – answer the following questions with the most appropriate response.

1. The region of an operon, close to the promoter, to which a repressor protein binds is called:
 - a) Promoter
 - b) Terminator
 - c) Regulator
 - d) Operator
 - e) Repressor
2. _____ is a group of linked genes whose expression is coordinately regulated.
 - a) Promoter
 - b) Operon
 - c) Regulator
 - d) Operator
 - e) Repressor
3. A sugar that is an indicator of the lac operon is:
 - a) Monosacharide
 - b) Galactose
 - c) Lactose
 - d) Glucose
4. The regulatory gene involved in the LAC Operon is called:
 - a) lacI
 - b) lacD
 - c) lacG
 - d) lacH
 - e) lacB
5. What are the digestive proteins that are produced by transcription and translation of the LAC Operon?
 - a) β -Galactosidase, Permease and Transacetylase
 - b) β -Galactosidase, Amylase and Permease
 - c) Pepsin, Permease and Transacetylase
 - d) β -Galactosidase, Transacetylase and Trypsinogen

Long Answer – answer the following question with the knowledge you have gained from class as well as previous knowledge.

6. Explain the process of gene regulation with the TRP Operon.
